State Of California The Resources Agency of California

Memorandum

To: Chairman William Keese, Presiding Member
Commissioner, Authur H. Rosefeld,
Associate Member

Date: September 6, 2002
Telephone: (916) 654-4206
File: 02-AFC-01

From: California Energy Commission - BILL PFANNER
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Subject: **ISSUES IDENTIFICATION REPORT FOR THE BLYTHE ENERGY PROJECT II (02-AFC-01)**

Attached is the Energy Commission staff's Issues Identification Report. This report serves as a preliminary scoping document as it identifies the issues the staff believes will require careful attention and consideration. However, this report may not include all the significant issues that arise during the case, as discovery is not yet complete, and other parties have not had an opportunity to identify their concerns. We will be prepared to present the Issues Identification Report at the Informational Hearing on September 9, 2002.

cc: Docket (01-AFC-4)
Proof of Service List

Attachment

ISSUES IDENTIFICATION REPORT

BLYTHE ENERGY PROJECT PHASE II

(02-AFC-01)

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PURPOSE OF THE REPORT

This report has been prepared by the California Energy Commission staff to inform the Committee and all interested parties of the potential issues that have been identified in the case thus far. Issues are identified as a result of discussions with federal, State, and local agencies, and staff review of the Blythe Energy Project Phase II (BEP II), Docket Number 02-AFC-01. This Issues Identification Report contains a project description, summary of potentially significant environmental issues, public comments received, and a discussion of the proposed project schedule. The staff will address the status of potential issues and progress towards their resolution in periodic status reports to the Committee.

PROJECT DESCRIPTION

The project would be a nominally rated 520 MW combined-cycle power plant. BEP II is proposed to be a second phase, located adjacent to the Blythe Energy Project (BEP I) that was approved by the Energy Commission on March 21, 2001 and is currently under construction. BEP II would consist of two Siemens Westinghouse V84.3a 170 MW combustion turbine generators (CTGs), one (1) 180 MW steam turbine generator and supporting equipment. BEP II would require no offsite linear facilities in addition to the BEP I offsite linear facilities (e.g., transmission line and natural gas pipelines).

Fuel

Natural gas will be supplied to the BEP II plant by the natural gas pipeline being constructed as part of the approved BEP I.

Water

Water will be supplied by one (1) new groundwater well with the capacity to pump up to 3,000 gallons per minute (GPM).

Other Infrastructure

Wastewater treatment systems being considered as part of the approved BEP I will be duplicated in BEP II. After maximum recycling of water through the plant, wastewater will be discharged to a new evaporation pond resulting in a zero liquid discharge system.

Distribution

BEP II will be electrically interconnected to the Buck Blvd. Substation (owned by Western); located at the northeastern corner of the approved BEP I site. The Buck Blvd. substation is connected to the Western owned Blythe substation and the Midway substation owned by Imperial Irrigation District (IID). The Blythe Substation interconnects five existing 161 kV regional transmission lines. Three of the transmission lines are owned by Western, one by IID, and the other by Southern California Edison (SCE). Interconnection of BEP II may change before the project is completed and is discussed below as a potential major issue.

Schedule
Construction is planned to begin in late 2003, with full operation expected in 2005.

Joint NEPA/CEQA Review
The BEP II will require a joint NEPA/CEQA Review process, as was required for BEP I, with the Western Area Power Administration (Western) as the Federal lead agency.

POTENTIAL MAJOR ISSUES

This portion of the report contains a discussion of the potential issues the Energy Commission staff has identified to date. This report may not include all the significant issues that may arise during the case, as discovery is not yet complete, and other parties have not had an opportunity to identify their concerns. The identification of the potential issues contained in this report was based on staff judgement of whether any of the following circumstances might occur:

- Significant impacts resulting from the project which may be difficult to mitigate;
- Non-compliance with applicable laws, ordinances, regulations, or standards (LORS);
- Conflicts arising between the parties about the appropriate findings or conditions of certification for the Commission decision that could result in a delay to the schedule.

The following table lists all the subject areas evaluated and notes those areas where the potentially major issues have been identified and if data requests have been requested. Even though an area is identified as having no potential major issues in this report, it does not mean that an issue will not arise related to the subject area.

MAJOR ISSUE	Data Request	Subject Area
Yes	Yes	Air Quality
No	No	Alternatives
No	Yes	Biological Resources
Yes	Yes	Cultural Resources
No	No	Facility Design
No	No	Geology / Paleontology Resources
No	No	Hazardous Materials Management
Yes	Yes	Land Use
Yes	Yes	Noise
No	Yes	Public Health
No	No	Reliability / Efficiency
No	Yes	Socioeconomics
Yes	Yes	Soil & Water Resources
No	Yes	Traffic & Transportation
No	No	Transmission Line Safety & Nuisance
Yes	Yes	Transmission System Engineering

No	Yes	Visual Resources
No	Yes	Waste Management

TECHNICAL ISSUES

Staff has begun its analyses of the project, as well as its assessment of related environmental and engineering aspects of the applicant's proposal and is currently in the discovery and analysis phase. Potential issues have been identified in Air Quality, Cultural Resources, Land Use, Noise, Soil and Water Resources and Transmission System Engineering.

AIR QUALITY

Contemporaneous Generation of Emission Reductions Credits (ERC)

Many of the emissions reduction credits (ERCs) proposed by the applicant (Caithness Blythe II) to offset the BEP II have yet to be issued by the district (Mojave Desert Air Quality Management District). The applicant has submitted proposed sources and some documentation under a confidential cover as proof of their intentions. In addition, many of the proposed ERCs would be issued by the district to a third party and then have to be purchased by the applicant. It is not clear whether or not the applicant has purchase agreements with any of the identified third parties.

The applicant proposes to secure their ERCs in parallel with the siting process. It is staff's opinion that contemporaneously generated or purchased ERCs can work within the Energy Commission siting process, but this may cause a significant schedule delay. Staff will need to know the complete ERC package to complete its preliminary Staff Assessment.

Visibility Impact Modeling

Due to the proximity of BEP II to the BEP I (currently under construction), the applicant agreed to conduct air dispersion modeling of the criteria air pollutant emissions impacts from the two projects combined. The results of this combined modeling analysis was presented in the application for certification (AFC).

However, a combined modeling analysis was not conducted for potential visibility impacts on the nearest Class I area (Joshua Tree National Park). Visibility impacts are modeled using the EPA approved CALPUFF program to generate a "percent change in defined" value, which is compared to the 5% significance threshold. The modeled percent change in visibility at the Joshua Tree National Park due to BEP II emissions is 4.32%. The modeled percent change in extinction (decrease in visibility) due to BEP I emissions is 3.28%.

Staff is concerned that the combined emissions from the two facilities may cause a greater than 5% modeled worst case change in visibility at the Joshua Tree National Park. In addition, staff is concerned that the modeled impact from BEP II is higher than the modeled impact from BEP I, even though the proposed emissions from BEP II are lower. Staff intends to explore these issues with the applicant.

Road Paving PM10 Emissions Reduction Credits

The applicant has proposed road paving to generate PM10 ERCs to offset the PM10 emissions from the BEP II project. Staff is reviewing the proposal to determine whether road dust can mitigate the project's combustion PM10 emissions, and the validity of the assumptions in the proposal. The applicant may need additional time to secure alternative or additional PM10 emissions offsets.

In addition, the road paving has not yet occurred. If the paving is determined to be a valid mitigation method, the paving will have to be done and the appropriate ERC will have to be issued by the air district before they can be used to mitigate the project. Any delays in road construction or ERC issuance could then impact the project schedule.

Cooling Tower PM10 Emissions

The applicant assumed in the cooling tower drift calculations that only 38.33% of the solids that escape the cooling tower will be PM10, with the remainder of the escaping solids forming particles larger then 10 microns across which are thus not included in the impact analysis.

Staff does not agree with this assumption. Regardless of the technical disagreement, staff believes the assumption that 100% of the controlled emission rate is PM10 is both conservative and reasonable. Staff has requested that the applicant provide an impact analysis assuming 100% of the cooling tower drift solids from PM10. Conversely, if the applicant believes that the PM/PM10 split from the cooling tower drift is defensible, they have been requested to provide research reports and papers, source tests, and empirical evidence to support their hypothesis that each liquid drift droplet forms a single solid particle.

Water Conservation Offset Program (WCOP) Fugitive Dust Impacts

The Water Conservation Offset Program (WCOP) for the BEP II proposes to leave 717 acres of farmland fallow for the life of the project. According to Natural Resources Conservation Service (NRCS), the landowner of such land would be responsible for limiting the wind blown soil erosion from the land to less than 5 tons/acre-year.

Staff is concerned that if a significant portion of the wind blown erosion from such fallow land is PM10, the WCOP could effectively add a substantial quantity of airborne PM10 to the region. Further, the soil erosion rates would vary from year to year, depending on annual precipitation, groundwater pumping rates, tilling activity, ultimate ground cover viability and rotation of fallowing.

Best Available Control Technology (BACT) Determination

The US EPA has commented on numerous recent projects (EPA; Letter to San Joaquin Valley APCD; May 6, 2002; Re: 01-AFC-22) that the BACT level for NOx should be 2.0 ppmvd on a 1-hour average and the BACT level for CO should be 2.0 ppmvd on a 3-hour average. The applicant has proposed a BACT level for NOx of 2.5 ppmvd on a 1-hour average and a BACT level for CO of between 5.0 and 8.4 ppmvd (depending on load) on a 3-hour average.

Staff is concerned that it may take time to bring the EPA and applicant into agreement on the appropriate BACT for the project. If the final BACT agreed to by all parties is different from the BACT originally proposed by the applicant, additional ambient air quality modeling (and analysis of that modeling) will be necessary. This issue could potentially impact the project schedule.

CULTURAL RESOURCES

Native American consultation is required under federal regulations. Resources considered sacred to Native Americans were identified for the BEP I Energy Project. Arranging meetings with Native Americans, identifying resources, impacts, and mitigation can be a time consuming and prolonged process. If impacts to significant sacred Native American resources are found, mitigation would need to be determined. Western will consult with the California State Historic Preservation Officer.

LAND USE

Agriculture

The applicant has yet to identify the land-related major elements of the Water Conservation Offset Program:

1) the specific parcels of irrigated crop land;
2) the choice between the use of rotational fallowing or permanent retirement of irrigated cropland, or a combination of the two; and
3) the timeline for the development and implementation of the program.

Concerns include the potential loss of higher-quality, irrigated agricultural land, and whether any land would be retired that is currently under a Williamson Act agricultural land conservation contract. Staff has written data requests on these items. Staff is presently discussing with the Department of Conservation the impact on agricultural land of rotational fallowing and permanent retirement, and the possibility of mitigation being necessary for taking irrigated agricultural land out of production.

Airport Compatibility

The Riverside County Airport Land Use Commission (ALUC) found the BEP II project inconsistent with the Comprehensive Land Use Plan for Blythe Airport at its July 18, 2002 meeting. If the Energy Commission decides to override this determination and approve the project, the ALUC has recommended conditions to this approval. Staff will consider the inclusion of these conditions in the Land Use portion of the Staff Assessment. Staff will be discussing the reasons for this finding of inconsistency with ALUC staff. The ALUC previously found the BEP I consistent with the Airport Land Use Plan.

NOISE ISSUES

The noise analysis in the AFC presumes that attaining a cumulative noise level of 52-53 dBA will be sufficient to avoid a significant noise effect. This conclusion is

based on the assumption that the average L90 values of 47-48 dBA during daytime and nighttime hours respectively represent the background noise level.

The AFC indicates that the average L90 value during the quietest period of the day (from 8 a.m. to 3 p.m.) is 44 dBA. This is the level that Energy Commission staff considers to be the ambient background noise level from which a permanent substantial increase in ambient noise levels is determined. The Energy Commission staff considers that a potential for a significant noise impact exists where the noise of the project plus the background exceeds the background by 5 dBA L_{90} or more at the nearest sensitive receptor. In accordance with CEQA, the predicted change in background noise levels must be addressed, and mitigated if found to be significant.

Based upon the applicant's data, the cumulative noise level due to ambient noise plus operation of the BEP I and the BEP II would be 51 dBA. This level of power plant operational noise will result in a substantial change in background noise levels.

To reduce the cumulative noise level to a level that is less than significant, it will be necessary to reduce BEP II power plant noise levels by about 5 dBA, as compared to the proposed system design.

Staff has requested information from the applicant to allow determination of whether it will be feasible to reduce power plant noise levels to a less than significant level, and to clarify the noise levels associated with other noise sources addressed in the AFC.

SOIL AND WATER RESOURCES

Water Conservation Offset Program (WCOP) Issues

BEP II has included the WCOP as mitigation to offset proposed Colorado River water consumption pumped as groundwater as part of the project. BEP II is proposing a Water Conservation Offset Program (WCOP) that entails the acquisition, through purchase or lease, of 717 acres of agricultural lands actively irrigated within the past five (5) years that are located within the Palo Verde Mesa. The applicant intends to fallow or retire the lands from all uses that depend on the Colorado River Water to offset consumptive water uses required by the plant facility. The practical effectiveness of the WCOP to offset the project's water use is undetermined. Should the program be found inadequate or otherwise defective, there could be impacts to the Colorado River.

Many of the soils within the Mesa and Valley areas are listed as Prime Agricultural lands and Highly Erodible Lands (HEL). Staff is concerned that the following process, if not carefully managed over the life of the BEP II, could result in degradation of the soils and overall quality and agricultural productivity and soil loss rates via wind erosion that could exceed the maximum threshold of five (5) tons/acre/year.

Groundwater Issues

BEP II has submitted an aquifer test and well interference report for BEP I compliance purposes that are required under the Soil and Water Conditions of Certification for the original BEP I project. This regards potential impacts on neighboring wells and water supply. While this BEP I compliance submittal is currently undergoing Energy Commission staff technical review, the preliminary results of this review indicate that the testing described in this report is incomplete. Should BEP II not resolve currently outstanding issues regarding aquifer conditions, well interference and related impacts will continue to be a potentially significant issue.

Groundwater contamination resulting from an old landfill on the project site could also adversely impact nearby groundwater users. BEP II does not provide an adequate review of potential sources of groundwater contamination, a characterization of the fate of these contaminants in the groundwater matrix and system, define the transport of contaminants in groundwater, or provide adequate groundwater sampling data for exposure assessment purposes. Until BEP II provides an adequate characterization of potential groundwater contamination, the significance of these impacts can not be determined and remains a potentially significant issue.

TRANSMISSION SYSTEM ENGINEERING

Interconnection Changes

Interconnections of the BEP II may change before the project is completed. There are currently upgrades being considered to the Imperial Irrigation District (IID) grid, which may result in additional transmission capacity. These upgrades are currently under environmental review by IID to select a preferred transmission line route. The issue is whether the IID upgraded will be considered as part of the interconnection at Buck Blvd., thus necessitating the CEC's review and consideration as part of the BEP II project.

Staff is researching several transmission lines in the BEP II area with regard to the purpose of new lines or line expansion especially as they relate to BEP I or BEP II. Staff will need to clarify project sponsor and CEQA/NEPA process.

Interconnection Study

The location of the project and its interconnection will affect several diversified transmission systems owned by Western, IID, Southern California Edison (SCE), Metropolitan Water District (MWD) and Arizona Public Service (APS). Additionally, there are many thousands of megawatts flowing through the general area with lines congested from imports from Arizona and generation in the area. These factors in conjunction with the need to coordinate system expansion with the California Independent System Operator (Cal-ISO), and Western Electricity Coordinating Council/North American Electricity Reliability Council (WECC/NERC) make conducting an adequate Interconnection Study problematic.

There are four major issues from a Transmission System Engineering perspective:

Coordination and Compatibility

There are highly significant differences between preparation of the two power flow base cases provided for the BEP II project under 2004 summer peak and light spring conditions, including differences in proposed future generation in the transmission interconnection queue, imports and major line flows.

Inconsistent Criteria Violations

As a result of the above, the system reliability criteria violations are inconsistent and have significantly different proportions in the two studies. The degree of overload and therefore the significance of the overload can not be determined.

Mitigation Measure Feasibility

The feasibility of the mitigation measures to eliminate overload criteria violations is uncertain. Should mitigation measures under consideration be found infeasible, then different measures must be identified. In addition, some portions of the Interconnection Study indicated overload criteria violations, but those violations were not addressed in the report and their mitigation measures are

unknown. Conformance with system reliability criteria cannot be determined if overloads are identified and not mitigated.

New Interconnection Study Required

Staff is concerned about our ability to determine conformance with LORS and identify the "project" within the project schedule given such different Interconnection Studies and so much uncertainty about reliability impacts. Staff has requested that a new Interconnection study based on 2005 system conditions and fully coordinated with all stakeholder transmission owners, the Cal-ISO and staff be provided. Staff's data request suggested both a process and Interconnection Study methodology. An initial discussion to discuss a study process and Interconnection Study methodology was held August 23, 2002. At that teleconference meeting the applicant suggested a different process and study methodology. The applicant will provide an outline of their suggested process prior to the September 10, 2002 workshop. This process will essentially consist of an Interconnection Study by the applicant that would include input from and be fully coordinated with the Transmission Owners, Cal-ISO and staff.

SCHEDULING ISSUES

The following is staff's proposed schedule for key events. The ability of staff to be expeditious in meeting this schedule will depend on the applicant's timely response to staff's data requests and other factors not yet discovered.

ENERGY COMMISSION STAFF'S PROPOSED SCHEDULE

	Activity	Day	Calendar Day
1	Applicant filed Application for Certification (AFC)		February 19, 2002
2	Executive Director's recommendation on data adequacy		July 9, 2002
3	Decision on data adequacy at business meeting	0	July 17, 2002
4	Staff filed data requests	37	August 23, 2002
5	Staff files Issue Identification Report	51	September 6, 2002
6	Information hearing, site visit	54	September 9, 2002
7	Data Request Workshop	54	September 9, 2002
8	TSE Information Exchange/Workshop	55	September 10, 2002
9	Applicant provides data responses	68	September 23, 2002
10	Data response and issue resolution workshop	85	October 10, 2002 (Tentative Date)
11	Local, state, and federal agency draft determinations (e.g.PDOC)	120	November 14, 2002
10	Preliminary Staff Assessment filed	150	December 16, 2002
11	Preliminary Staff Assessment workshop	170-180	January 6 - 16, 2003
12	Local, state, and federal agency final determinations (e.g., FDOC, bio opinion)	180	January 16, 2003
13	Final Staff Assessment	210	February 15, 2003
14	Evidentiary hearings	220 - 240	February 25, 2003 - March 17, 2003
15	Committee files proposed decision	305	May 21, 2003
16	Hearing on proposed decision	320	June 5, 2003
17	Committee files revised proposed decision	350	July 3, 2003
18	Commission Decision	365	July 18, 2003